

VCCI Council http://www.vcci.jp/





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General Incorporated Foundation - VCCI Council



Objective of Establishing the Council

With advances in electronic technologies and increasing informatization in the home, IT equipment, including electronic office equipment, such as PCs and facsimiles, have become increasingly popular. This kind of equipment often emits electronic interference over a wide range of frequencies resulting from the digital technology utilized in them. Depending on its level, interference with radio and television can occur, and this problem of radio interference has gained attention.

The International Special Committee on Radio Interference (CISPR) of the International Electrotechnical Commission (IEC) has been discussing radio interference since 1979. In September 1985, recommendations regarding "Limits and Methods of Measurement of Radio Interference Characteristics of Information Technology Equipment" were made in Publication 22. In the U.S., the Federal Communications Commission (FCC) has been instituting regulatory measures since 1981.

In Japan, the Telecommunications Technology Council of Ministry of Posts and Telecommunications (now Information and Communications Council under Ministry of Internal Affairs and Communications) drafted Japanese technical standards on limits and methods of measurement of electromagnetic interference caused by information technology equipment based on the CISPR recommendations. A set of these standards was submitted for official recognition to the Minister of Posts and Telecommunications on December 2, 1985. In response, the Ministry issued to related industries a request for cooperation in controlling radio disturbance based on those standards.

On December 19, 1985 the four industry associations - the Japan Electronic Industry Development Association (JEIDA)*, the Japan Business Machine Makers Association (JBMA)**, the Electronic Industries Association of Japan (EIAJ)*, and the Communications Industry Association of Japan (CIAJ) *** jointly established without delay the Voluntary Control Council for Interference by Information Technology Equipment (VCCI) to cope with radio disturbance problems caused by personal computers, facsimile equipment ant the like. The establishment of VCCI was a result of acute discussions that concluded that the Ministry's request be best met with industry's voluntary measure.

Since then VCCI has continued its activities as a voluntary organization (a constructive corporation) up to now. Meanwhile new Japanese laws prescribing matters concerning corporate bodies were promulgated in June 2006 ("No. 48-1Act on General Incorporated Associations and General Incorporated Foundations" and other associated laws). VCCI decided to become a corporate body from April 2009 taking advantage of the promulgation of these laws.

The new law system allows the choice of either incorporated association or incorporated foundation in establishing a corporate body. Our choice was the foundation (not-for-profit type) because it will allow us to continue our current activities with little or no change. We are sure that we will be able to better serve general consumers and our members because of enhanced social credibility the incorporation will bring about on us.

We have renewed our determination to broaden the membership base by obtaining enrollment of greater number of companies and organizations from within Japan and overseas in the voluntary control scheme of VCCI Council so the interest of Japanese consumers will better be protected in terms of anxiety-free use of ITE.

Note:

- * JEIDA and EIAJ were merged into JEITA (Japan Electronics and Information Technology Industries Association)
- ** JBMA was renamed JBMIA (Japan Business Machine and Information System Industries Associations)
- *** CIAJ remains the same

Purpose

The purpose of this corporate body is to promote, in cooperation with related industries, the voluntary control of radio disturbances emitted from information technology equipment (ITE) on the one hand, and improvement of robustness of ITE against radio disturbances on the other hand, so that the interests of Japanese consumers are protected with respect to anxiety-free use of ITE.

Scope

3.1 Scope of Application

The Voluntary Control applies to the Information Technology Equipment (ITE) to be shipped for the domestic market in Japan.

3.2 Definition of ITE

ITE refers to equipment with a rated power supply voltage not exceeding 600V, which has a primary function of one or a combination of the following functions-entry, storage, display, retrieval, transmission, processing, switching or control of data and of telecommunication messages - and which may be equipped with one or more terminal ports typically operated for information transfer. However, these regulations shall not apply to the following types of equipment:

- (1) Equipment which is subject to, or under review of being subject to other standards or laws equivalent in objective to these regulations in Japan, even if it fits under the definition above for ITE. This includes all radio equipment with primary functions of radio transmission and reception as stipulated in Radio Law or in-vehicle ITEs, and equipment stipulated in the Electrical Appliance and Material Safety Law, such as household electrical appliances, radio and television broadcast receivers.
- (2) ITE in telecommunication centers (ITE only used in buildings controlled by telecommunication carriers).
- (3) Control units designed to be used in industrial plants where the data processing function is a secondary function.
- (4) Testing and measuring instruments designed to be used for Industrial, Scientific, and Medical purposes where the data processing function is a secondary purpose (ISM equipment).
- (5) ITE whose power consumption is 6 nW or less.

Membership to the VCCI Council

Companies and organizations that support the objectives of the Council and wish to participate and cooperate in voluntary controls are required to first become a member of the Council. Such companies and organizations should first submit a "Membership Application" form to the Council Secretariat.

After the Council receives the "Membership Application" form and approves it, the applicant must remit payment of the membership admission fee and annual membership fee for each fiscal year (April through March). Moreover, for members who participate from or after October (second half of the fiscal year), the first year annual membership fee shall be half the following amount.

(1) Admission fee

(2) Annual membership fee:

(Regular Members)

Category A (Regular Members)

submitting 70 or more report of compliance a year.

Category B (Regular Members) 400,000 JPY/432,000 JPY (consumption tax 8% includes) Companies submitting 10 or more report of compliance in a year.

Category C (Regular Members) 200,000 JPY/216,000 JPY (consumption tax 8% includes) Companies submitting less than 10 report of compliance in a year.

(Supporting Member)

Companies with no submission of report of compliance but supporting VCCI operations. (Mainly commercial testing site)

Note:

- who have branch or agent in Japan.
- form to issuance of an invoice of necessary fees.
- the report of compliance will be available.

Members can access to Members only page. Members can download following materials.

- VCCI label/mark
- Technical Materials

50,000 JPY/54,000 JPY (consumption tax 8% includes)

800.000 JPY/864.000 JPY (consumption tax 8% includes) Companies whose executives are appointed chairman, vice-chairmen, or similar ranking officers at the three industry organizations (JEITA, JBMIA, CIAJ) as well as companies

Category D (Supporting Member) 100,000 JPY/108,000 JPY (consumption tax 8% includes)

• Consumption tax (now 8%) is imposed for domestic members and overseas members

• The admission procedure takes about one week from receipt of membership application

Handling fee of 2,500 JPY / 2,700 JPY (consumption tax 8% includes) will be charged.

• After a new member company remits above fees, it is registered as VCCI official member and submission of the application for registration of measurement facilities and applies for

How to Practice Voluntary Control

In this measure of voluntary control the member is obliged to assure that the strength of the disturbance from his products is contained below VCCI specified level before distributing them in Japan.

Before the shipment of his product the member shall file conformity verification report to VCCI based on the ITE Class of the product in question and affix the VCCI mark of the Class on the product. The whole scheme of voluntary control is indicated in the following chart.



5.1 Categorization of ITE

ITE is divided into two categories, denoted Class B ITE and Class A ITE.

• Class B ITF

Class B ITE is equipment that satisfies the Class B ITE disturbance limits. It is intended primarily for use in the domestic environment and may include:

- (1) Equipment, with no fixed place of use; for example, portable equipment powered by builtin batteries.
- (2) Telecommunication terminal equipment powered from a telecommunication network.
- (3) A personal computer or portable word processors, as well as peripheral equipment connected to it.
- (4) Facsimile equipment

Note:

A domestic environment is an environment where broadcast radio and television receivers might be used within a distance of 10m from the ITE concerned, in other words, a residential environment.

Class A ITF

Class A ITE is equipment that satisfies the Class A ITE disturbance limits but not the Class B ITE disturbance limits.

5.2 Confirmation of Compliance

The member manufacturers should verify that their ITE products conform to the permissible tolerance of the technical requirements established by the Council. The member manufacturers are required to verify technical requirement conformity and submit a report as indicated below.

- (1) Confirmation of Compliance with Technical Standards which are accredited and registered according to item 6 below.
- (2) Registration of Compliance for its approval prior to shipment of the ITE products.

Note:

It takes about one week to issue a verification of acceptance of the "Conformity Verification Report."

5.3 Labeling Units

ITE for which the member manufacturer has filed a conformity verification report shall designate the fact using a label for Class A ITE and a mark/logo for Class B ITE. The Council has specifications concerning the use of the label and mark/logo in catalogs and instruction manuals. Member manufacturers should place the labels and marks for their respective ITEs in a manner which is easily visible and in accordance to these specifications.

(1) Class A ITE shall have the following message on a visible location on each product.

この装置は、クラス A 情報技術装置です。この装置を家庭環境で使 用すると電波妨害を引き起こすことがあります。この場合には使用 者が適切な対策を講ずるよう要求されることがあります。 VCCI-A

Translation:

This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take corrective actions. VCCI-A

(2) Registered Class B ITE shall have the following label in a visible location on each product:



The member manufacturers should perform conformity verification tests on their ITE products to confirm that their ITE products meet the technical requirements established by the Council. Conformity verification tests shall be performed at measurement facilities,

The member manufacturers performing conformity verification testing of their ITE product(s) should present a "Conformity Verification Report," using the specified form to the Council

Registration of Measurement Facilities

The Measurement Facilities for Product Conformance Verification Test are needed to register VCCI, depend on "Rules for Registration of Measurement Facilities" by receive examination. It requires about three months.

But the registration of measuring facilities which are accredited by Laboratory Accreditation Bodies are required less than one month, because of no Examination.

Market Sampling Test

The Council conducts market sampling tests for the purpose of checking conformity of ITE distributed in the Japanese market with the technical requirements. The objective of the test conducted based on "The Rules for Market Sampling Test" is to provide members with level playing field for their voluntary efforts in maintaining product conformity. Members have an obligation to cooperate with the Council in the test on their products, if selected.

Technical Requirements

Members are obliged to follow limits on and methods of measurement of electromagnetic interference caused by ITE prescribed in the technical requirements which were established by the Council in such a way to reflect the Japanese standards issued by the Information and Communication Council under Ministry of Internal Affairs and Communications.

[Limits] (1) Class A ITE

① Conducted disturbance at mains ports (radio frequency voltage induced across the supply terminals) shall not exceed the following levels.

Frequency range	Limits		
	Quasi-peak	Average	
150kHz ~ 500kHz	79dB	66dB	
500kHz ~ 30MHz	73dB	60dB	

Note 1 : 1µV is regarded as 0 dB.

Note 2: If the average limits are met when using a quasi-peak detector, the EUT shall be deemed to meet both limits and measurement with the average detector is unnecessary.

Note 3 : The lower limit shall apply at the transition frequency.

2 Conducted disturbance at communication ports shall not exceed the following levels. The measurements shall comply with either the voltage limits or the current limits.

Frequency range	Voltage limits		Current limits	
	Quasi-peak	Average	Quasi-peak	Average
150kHz ~ 500kHz	97 ~ 87dB	84 ~ 74dB	53 ~ 43dB	40 ~ 30dB
500kHz ~ 30MHz	87dB	74dB	43dB	30dB

Note 1 : For voltage limits, 1µV is regarded as 0 dB. For current limits, 1µA is regarded as 0 dB.

- 150kHz ~ 500kHz.
- Note 3 : If the average limits are met when using a quasi-peak detector, the EUT shall be
- distance of 10 m.

Frequency range	Quasi-peak
30MHz ~ 230MHz	40dB
230MHz ~ 1000MHz	47dB

Note 1 : The lower limit shall apply at the transition frequency.

- according to Council regulations at those distances. If the measurement distance is 3 m, then 10 dB shall be added to the above limit. limit.
- Note 3 : 1µV/m is regarded as 0 dB.
- distance of 3 m.

Frequency range	Average limits	Quasi-peak
1 ~ 3GHz	56dB	76dB
3 ~ 6GHz	60dB	80dB

Note 1 : The lower limit shall apply at the transition frequency. Note 2 : 1µV/m is regarded as 0 dB.

(2) Class B ITE

① Conducted disturbance at mains ports (radio frequency voltage induced across the supply terminals) shall not exceed the following levels.

Frequency range	Limits		
	Quasi-peak	Average	
150kHz ~ 500kHz	66 ~ 56dB	56 ~ 46dB	
500kHz ~ 5MHz	56dB	46dB	
5MHz ~ 30MHz	60dB	50dB	

Note 1 : 1µV is regarded as 0 dB.

- the range of 150kHz ~ 500kHz.
- Note 4 : The lower limit shall apply at the transition frequency.

Note 2: The limits shall decrease linearly with the logarithm of the frequency in the range of

deemed to meet both limits and measurement with the average detector is unnecessary. Note 4 : Conversion coefficient for voltage limits and current limits shall be 20 log 10 150=44 dB.

③ Quasi-peak levels of radiated disturbance shall not exceed the following levels at a

Note 2 : Measurements shall basically be taken at a distance of 10 m. However, measurements at 3 m or 30 m shall be acceptable if the measurement facility has been registered

If the measurement distance is 30 m, then 10 dB shall be subtracted from the above

④ Quasi-peak levels of radiated disturbance shall not exceed the following levels at a

Note 2 : The limits, expressed in dB, shall decrease linearly with the logarithm of the frequency in

Note 3 : If the average limits are met when using a quasi-peak detector, the EUT shall be deemed to meet both limits and measurement with the average detector is unnecessary.

2 Conducted disturbance at communication ports shall not exceed the following levels. The measurements shall comply with either the voltage limits or the current limits.

Frequency range	Voltage limits		Current limits	
	Quasi-peak	Average	Quasi-peak	Average
150kHz ~ 500kHz	84 ~ 74dB	74 ~ 64dB	40 ~ 30dB	30 ~ 20dB
500kHz ~ 30MHz	74dB	64dB	30dB	20dB

- Note 1 : For voltage limits, 1µV is regarded as 0 dB. For current limits, 1µA is regarded as 0dB.
- Note 2: The limits shall decrease linearly with the logarithm of the frequency in the range of 150kHz ~ 500kHz.
- Note 3 : If the average limits are met when using a quasi-peak detector, the EUT shall be deemed to meet both limits and measurement with the average detector is unnecessary.
- Note 4 : Conversion coefficient for voltage limits and current limits shall be 20 log 10 150=44 dB.
- Note 5 : Tentatively, for high-speed services with high spectrum density in the frequency range of 6 ~ 30MHz, the limit shall be relaxed 10dB. However, this relaxation shall be limited to common mode disturbance converted from transmission signal in the cable.
- ③ Quasi-peak levels of radiated disturbance shall not exceed the following levels at a distance of 10 m.

Frequency range	Quasi-peak
30MHz ~ 230MHz	30dB
230MHz ~ 1000MHz	37dB

Note 1 : The lower limit shall apply at the transition frequency.

Note 2 : Measurements shall basically be taken at a distance of 10 m. However, measurements at 3 m or 30 m shall be acceptable if the measurement facility has been registered according to Council regulations at those distances.

If the measurement distance is 3 m, then 10 dB shall be added to the above limit.

If the measurement distance is 30 m, then 10 dB shall be subtracted to the above limit.

Note 3 : 1µV/m is regarded as 0 dB.

④ Quasi-peak levels of radiated disturbance shall not exceed the following levels at a distance of 3 m.

Frequency range	Average limits	Quasi-peak
1 ~ 3GHz	50dB	70dB
3 ~ 6GHz	54dB	74dB

Note 1 : The lower limit shall apply at the transition frequency.

Note 2 : 1μ V/m is regarded as 0 dB.

Activities

- (1)Committee
- (2) and relevant agencies.
- (3) Acceptance as part of voluntary control activities.
- (4) agencies).
- (5)revise them.
- (6)
- To study EMC trends abroad, and to study and promote MRA. (7)
- To help promote VLAC. (8)
- (9)acceptance to relevant companies and associations.
- (10) To handle other necessary matters regarding voluntary control.

VCCI Council

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To formulate and amend basic policies regarding the voluntary controls for electromagnetic emissions from information technology equipment. Planning

To arbitrate between member organizations and contact/coordinate with government

To receive and maintain Conformity Verification Reports and to issue the Certificate of

To conduct market sampling tests (tests are consigned to non-profit third party testing

To research the Technical Requirements, present the results and to establish and

To educate EMC engineers in order to enhance overall EMC measurement technique.

To disseminate relevant information to users among the general public, and promote